



July 30, 1997

Superfund Fact Sheet

Commencement Bay Nearshore/Tideflats Bay-Wide Update

Tacoma, Washington

The Bay-Wide Update gives you information on sediment cleanup activities being conducted in the waterways within the Commencement Bay Nearshore/Tideflats (CB/NT) Superfund site, and it gives an update of what sources of contamination have been controlled to date. It also describes the on-going activities at the former Asarco Smelter, including the off-shore sediment cleanup. These areas are being addressed by the U.S. Environmental Protection Agency (EPA) and the State of Washington Department of Ecology (Ecology).

Highlights Contained in this Update

EPA's Final Decision on the Cleanup Level for PCBs in Commencement Bay

- A Short Summary of an EPA Public Meeting Held on June 4, 1997
- Potentially Responsible Party Search is Nearing Completion on the Thea Foss Waterway
- Cleanup Activities Being Conducted in the Waterways
- What's Happening at Asarco

Background

Since the late 1800's, shipbuilding, oil refining, chemical manufacturing and storage, and other industrial activities have caused hazardous waste contamination of the land and sediments in the Commencement Bay area. Many of these contaminants have impacted marine life. The EPA and Ecology cleanup goal is to achieve sediment quality within the waterways that will support a healthy marine environment and reduce the risks to people from eating contaminated seafood from the bay.

EPA's Final Decision for PCBs in Commencement Bay

Polychlorinated biphenyls (PCBs) can be found throughout Commencement Bay. PCBs are a group of industrial compounds most commonly used as a flame retardant in electrical equipment and have been found to cause cancer. The Hylebos

Waterway has the highest concentrations of PCBs, with 24,000 parts per billion (ppb) being the highest level detected to date. EPA has been reevaluating the cleanup requirements for PCBs in Commencement Bay in order to find the best balance between protecting the environment and public health and the extremely high cost of cleanup.

After evaluating and responding to all of the comments received during a public comment period this spring, EPA has modified the PCB cleanup level for the Commencement Bay Nearshore/Tideflats Superfund site from 150 parts per billion (ppb) to be achieved within 10 years after cleanup, to 450 ppb to be achieved immediately after cleanup. This means that EPA will require dredging or capping in areas of Commencement Bay that have levels of PCBs in sediments at 450 ppb or higher. Sediments with PCB concentrations below 450 ppb will be left in place to recover over time. The PCB cleanup level in Commencement Bay remains the most stringent of any major Superfund cleanup in the country. PCB cleanup levels at other major Superfund sediment cleanups are 1,000 ppb or higher.

On March 4, 1997, EPA announced the proposal to modify the PCB cleanup level. Although the PCB cleanup level will change for the entire Commencement Bay Nearshore/Tideflats Superfund site, the change will significantly affect the cleanup plan for the Hylebos Waterway. EPA's analysis showed that with this new cleanup level, the final overall average of PCB contamination in Commencement Bay will be 63 ppb (rather than the estimated 51 ppb under the old number), with an estimated \$13 million cost savings.

EPA held a public comment period from March 10 through April 9, 1997 and held a public meeting on March 26, 1997 to discuss our proposal. Six people gave verbal comments at the public meeting, and EPA received 31 comment letters. It is clear from the public comments we have received that there is a wide diversity of opinion on this topic. Some commentators support EPA's proposal, some believe the 150 ppb cleanup level should not be changed, and some commentators told EPA that the cleanup number should be lower. EPA evaluated all of the comments to determine whether and to what extent our proposal should be changed based on public comments.

EPA believes that within 10 years after cleanup, natural recovery would further reduce the PCB contamination in Commencement Bay. The Washington

Department of Ecology and some members of the public thought EPA should not rely on natural recovery to reduce PCBs unless the cleanup plan included a guarantee that PCB concentrations will be reduced over time. Based on these comments, EPA's final decision is to retain the requirement that PCB contamination levels in sediments be reduced to 450 ppb or below immediately after dredging, and to add a requirement that PCB concentrations must be reduced to at least 300 ppb within 10 years after cleanup. Modeling efforts done to date indicate that PCBs will be reduced naturally to below 300 ppb in 10 years, but if for some reason this does not occur, additional cleanup actions will be taken to further reduce PCB concentrations.

The final decision is documented in an Explanation of Significant Differences (ESD), which becomes part of the Record of Decision. Comments received during the comment period and EPA's responses are also included with the ESD. The document is part of the Administrative Record for the CB/NT site and can be reviewed at the

information repositories listed in the back of this fact sheet. We have also included a few commonly asked questions about the PCB issue. They can be found on page 3.

For more information, please call **Allison Hiltner**, EPA Project Manager, at **(206) 553-2140**.

Disposal Sites Forum - Summary of Cleanup Alternatives for the Hylebos Waterway

Last summer, EPA began facilitating a group called the Disposal Sites Forum, because it is important for us to understand the concerns of the community as we develop cleanup plans for the Commencement Bay cleanup area. This group discussed the disposal site selection process and disposal site locations for contaminated sediments which must be removed to clean up Commencement Bay. On June 4, 1997, a public meeting was held to give updates on the different waterways in Commencement Bay, and featured a presentation of cleanup alternatives for the Hylebos Waterway.

The following are some commonly asked questions on the PCB issue and EPA's responses.

1. What does the decision to change the PCB cleanup level mean?

EPA's modification to the PCB cleanup level means that all contaminated sediments at the CB/NT Superfund site with PCB concentrations above 450 parts per billion (ppb) will be dredged and put in a confined disposal facility or will be capped in place. Sediments with PCB concentrations between 450 ppb and 300 ppb will be monitored. If monitoring indicates that contaminant concentrations will not be reduced to 300 ppb within 10 years through natural recovery processes, additional cleanup actions will be taken to further reduce PCB concentrations.

2. What are the human health and environmental risk associated with the new decision as opposed to the old one?

Both cleanup plans significantly reduce human health and environmental risks when compared to current conditions, and are only slightly different from each other. For example, cancer risks for a tribal fisher who consumes a large proportion of fish from the CB/NT Site for an entire lifetime are about 1 in 1,000 under current conditions. Under the old PCB cleanup level, these risks would have been reduced to about 1.2 in 10,000 immediately after cleanup, with further reductions over time. Under the new PCB cleanup level, these risks will be reduced to about 1.4 in 10,000 immediately after cleanup, again with further reductions over time.

3. What is natural recovery?

Natural recovery is the process by which sediment contaminant concentrations in the upper sediment layers are reduced over time. The upper sediment layers serve as important habitat for fish and other marine organisms. After source control and cleanup of highly contaminated sediments is complete, contaminant concentrations in the remaining marginally contaminated areas are reduced through mixing with and burial by more recently deposited clean sediments, for example, from the Puyallup River and Hylebos Creek. Other process such as biodegradation and diffusive loss to the water column can also help to reduce contaminant concentrations over time.

4. Why does EPA believe contaminant concentrations will be reduced in the 10 years after cleanup, when the National Oceanic and Atmospheric Administration's studies show that conditions in the Hylebos Waterway now are essentially the same as they were 10 years ago?

EPA believes conditions will be significantly changed after completion of source control and the sediment cleanup, so that natural recovery can occur. Most of Ecology's source control work in the Hylebos Waterway has been completed in the last few years. In addition, the highly contaminated sediments will continue to act as a source of contamination to more marginally contaminated sediments until they are dredged or capped. Once these sources have been removed, natural recovery can occur.

5. Is this decision being driven by cost?

EPA's mandate under the Superfund law is to select cost-effective remedies that protect human health and the environment. The agency carefully evaluated the risks to human health and the environment associated with increasing the cleanup level and determined that the change in the risks was very minimal. We therefore selected the cleanup level that would provide for a less costly, but still protective, cleanup.

6. What is the difference in cost and who will benefit?

Everyone who uses Commencement Bay benefits from the healthier environment resulting from the cleanup. EPA estimates the cost of the Hylebos Waterway cleanup will be \$18 million with the new PCB cleanup level, versus approximately \$31 million under the old PCB cleanup level. Potentially responsible parties for the Hylebos Waterway will be asked to pay for the cleanup. The cost of cleanup of other waterways will probably not be affected by the change in the PCB cleanup level.

For more information, please call Allison Hiltner, EPA Project Manager, at (206) 553-2140.

Next steps for the forum will include a discussion on the potential feasibility of combining disposal sediments from Middle Waterway with either Hylebos or Thea Foss dredged sediments. EPA also requested comments on the proposed cleanup alternatives presented by the Hylebos Cleanup Committee for cleanup activities in the Hylebos Waterway.

EPA will hold a formal public comment period on the proposed cleanup plan for each waterway and the contaminated sediments outside of the Asarco smelter and will consider public comments before approving final cleanup plans. EPA also intends to have several informal opportunities for public comment as part of the ongoing Disposal Sites Forum process.

A more detailed summary of the June 4th meeting can be reviewed at the information repositories, or you may request a copy by calling **Jeanne O'Dell**, at **(206) 553-6919**.

Hylebos Waterway

Sediment remedial design studies in the Hylebos Waterway are continuing under a 1993 Administrative Order on Consent between EPA and the Hylebos Cleanup Committee (HCC). The HCC consists of the Occidental Chemical Co., Kaiser Aluminum and Chemical Co., Elf Atochem North America Inc., Asarco, Inc., General Metals of Tacoma, Inc., and the Port of Tacoma.

Evaluating the Success of Source Control

The HCC prepared a report in October 1996 which provides an independent assessment of the success of source control efforts and recommendations regarding whether further work is needed to ensure that sources will have been adequately controlled by the time the cleanup begins. The report verifies Ecology's assessment that most of the Hylebos Waterway facilities have done a good job of controlling sources of contamination, but some source control work remains to be done. Of particular concern are the contaminated sediments and debris in intertidal areas in front of many Hylebos facilities, which may erode into and further contaminate the Waterway. EPA and Ecology have been reviewing this report and have provided comments to the

HCC. EPA, Ecology, and the HCC continue to discuss the need for additional source control work in the Hylebos Waterway.

Developing a Cleanup Plan

The HCC developed a report called the Hylebos Waterway Round 1 Data Report, which was provided to EPA on May 19, 1997. The report contains maps of areas requiring sediment cleanup in the Hylebos Waterway, and the estimated volume of sediments requiring dredging and disposal. The HCC also provided a report, called the Preliminary Disposal Site Evaluation, which further analyzes and prioritizes disposal sites, incorporating information gained at the Disposal Sites Forum. The HCC presented their proposed cleanup areas and evaluation of disposal sites at the June 4th Disposal Sites Forum meeting. EPA held a public comment period on the HCC's reports from June 4 to June 23, 1997. EPA will incorporate comments received during the public comment period into our comments on these reports.

For more information, please call **Allison Hiltner**, EPA Project Manager at **(206) 553-2140**.

Occidental Removal

EPA is currently negotiating an Administrative Order on Consent (AOC) with Occidental Chemical Corporation for cleanup of the embankment area at the Occidental plant on the Hylebos Waterway, and cleanup of an offshore subtidal area known as Area 5106 which is contaminated with organic compounds. It is anticipated that negotiations for the AOC will be completed in August 1997, and that further sampling of both the embankment area and Area 5106 will begin. Cleanup of the entire embankment area will take place after a proposed remedy, presented in a document known as an Engineering Evaluation and Cost Analysis (EECA), has been subject to public comment and approved by EPA. The EECA for the embankment area as well as an EECA for Area 5106 will be available for public comment in 1998. Cleanup of these areas may begin as early as next summer.

For more information, please call **Ken Marcy**, EPA Project Manager, at **(206) 553-2782**.

Thea Foss Waterway

EPA has reviewed the City of Tacoma's cleanup options and provided comments to the City. We also reviewed comments received from the public and incorporated those comments with ours to the City on the cleanup options for the Thea Foss Waterway. EPA's comments, along with the comments EPA received from the public, have been placed in the information repositories and are available for review. We also provided a copy of the comments transmitted to the City to members of the public who commented on the City's cleanup options report.

EPA's comments, along with data from sampling which is occurring this summer, will be incorporated into the next and final report, called the Pre-Remedial Design Evaluation Report. This report will recommend a comprehensive cleanup plan for contaminated sediments in the Thea Foss and Wheeler Osgood Waterways and is expected to be available for public comment in late 1997.

For more information, please call **Christine Psyk**, EPA Project Manager, at **(206) 553-1748**.

Search for Potentially Responsible Parties on Thea Foss is Nearing Completion

As part of the process to identify potentially responsible parties (PRs) who will pay for the cleanup at Superfund sites, EPA sends out information requests. The information received on current and historical sources of contamination has assisted EPA in identifying parties responsible for cleaning up the Thea Foss and Wheeler Osgood Waterways. The majority of the potentially responsible parties have been identified, and EPA hopes to finalize the group this summer.

General Notice Letters were sent out on July 25, 1997, identifying additional parties who are considered potentially responsible and may be held liable for costs incurred, including those related to investigation, planning, studies and cleanup. The extent of the contamination in the waterways has already been

evaluated by the City of Tacoma, and when the PRP search is complete, negotiations for the cleanup design will begin.

For more information, please call **Ken Marcy**, EPA Project Manager, at **(206) 553-2782**.

Middle Waterway

The design for cleanup of the last of the waterways containing contaminated sediments in Commencement Bay is now underway. EPA recently negotiated an Administrative Order on Consent with Pioneer Industries, Foss Maritime, and Marine Industries Northwest to perform the design activities necessary to clean up Middle Waterway. One important pre-remedial design activity is sampling of sediments to determine the areas and volumes of sediments that exceed cleanup levels and will require a cleanup action. Sampling will start in the spring of 1998. The three parties will also evaluate potential disposal sites should dredging of contaminated sediments be required as part of the cleanup action.

Restoration projects are also in place or are planned for the head of the waterway. As part of an agreement to resolve their liability for natural resource damages, Simpson Tacoma Kraft and Champion International restored approximately six acres of intertidal habitat in the waterway. The City of Tacoma is also planning to restore nearly two acres of property in early 1998 as part of its agreement to resolve natural resource damages.

For more information, please call **Elly Hale**, EPA Project Manager, at **(206) 553-1215**.

Sitcum Waterway

Cleanup activities in the Sitcum Waterway were completed in 1994. Post construction monitoring activities, which include water quality, sediment quality, and Milwaukee Waterway habitat/mitigation monitoring, are ongoing and are being performed according to schedules and guidelines. Preliminary monitoring data indicate that the Sitcum project is successful and functional. The Port of Tacoma is coordinating with EPA to identify the

appropriate level of long term ground water monitoring.

An additional mitigation project to restore 9.5 acres of habitat, the Clear Creek Habitat Improvement Project, is on schedule for completion by this fall.

For more information, please call **Christina Ngo**, EPA Project Manager, at **(206) 553-0171**.

Ecology's Urban Bay Action Team Source Control Activities

Since the early 1990's, Ecology has been working to identify sources of the problem chemicals that enter into the Thea Foss/Wheeler Osgood, Middle, Sitcum, St. Paul, or Hylebos Waterways. Ecology has identified 71 confirmed sources, and as of May 1, 1997, cleanups have been completed at 61 of the sites. Source control investigations or actions are ongoing at the remaining 10 sites.

Since the last update, source control is complete for the mouth of the Thea Foss Waterway. Source control work has also been completed at the following sites:

In the Middle Waterway Problem Area:

- Marine Industries Northwest (shipyard)

In the Mouth of Thea Foss Problem Area:

- Totem Marine Services (boatyard)
- Storm Drain 254 (drains to Wheeler-Osgood Waterway)

In addition, Ecology fined AK-WA (shipyard) \$52,000 for violation of its National Pollution Discharge Elimination System (NPDES) Permit. The shipyard closed operations soon after and is no longer considered an ongoing source of contamination to the mouth of the Hylebos Waterway.

For more information, please call **Dave Smith**, Department of Ecology, at **(360) 407-6250** or **Christina Ngo**, EPA Project Manager, at **(206) 553-0171**.

Former Asarco Tacoma Smelter

EPA and Asarco have been working on a cleanup plan that includes cleaning up contaminated soil, slag, and surface water, including disposal of highly contaminated soil, without treatment, in an on-site containment facility (OCF) on the former Asarco Smelter site.

Design for the cleanup is well underway. Several work plans for additional pre-design field work have been approved over the last several months (e.g., groundwater dewatering in the source areas and geotechnical work in the on-site containment facility area). On May 9, Phase 1a Remedial Design documents (30% design) were submitted by Asarco. The activities addressed are: surface water drainage and control; transportation and land use integration; site-wide utilities/infrastructure; and demolition of remaining structures.

Phase 1b Remedial Design documents were submitted on June 9, 1997. The activities addressed in these documents are: ground water monitoring and control; on-site containment facility (OCF); soil removal and replacement; and boat launch reconstruction. In addition, the following data reports were also submitted: ground water dewatering characteristics evaluation report; Bennett Street promontory geotechnical investigation report; and geotechnical and source area verification report. All draft Remedial Design documents are available for review at EPA, the Asarco Information Center, Citizens for a Healthy Bay, and Ecology offices.

Other activities that have or will be taking place this summer include:

- A shoreline erosion investigation, complete with a helicopter fly-by to determine if and where the slag shoreline may be eroding and will need armoring.
- The evaporation system was relocated from the northern side of the smelter site to the south end of the Fine Ore Bins building.

-- Surface water will be studied to determine the quality of the surface waters coming onto the site from the Ruston/North Tacoma area and the quality of the waters running across the site.

-- Demolition and Dewatering demonstrations. Different demolition techniques will be assessed in order to demolish the vertical walls (e.g., walls of the old buildings) left in place from the 1992-93 demolition activities. Also, Asarco will be assessing the ability to draw-down (e.g., dewater) the waters in the cooling pond area and the water which builds up behind the concrete walls so that excavation activities can occur in these locations.

For more information, please call **Piper Peterson Lee**, EPA Project Manager, at **(206) 553-4951**. After August 11, 1997,

please call **Kevin Rochlin**, EPA Project Manager, at **(206) 553-2106**.

Asarco Off-Shore Sediments

Sediments along the Asarco shoreline are contaminated, and a test cap or covering will be placed over the contaminated sediments in September 1997. The cap will be monitored to see if it stays in place and how much erosion will occur. A sediments and ground water task force has been formed to look at the impacts of site ground water on the potential sediment cleanup activities. The task force consists of EPA, Asarco, Ecology, National Oceanic and Atmospheric Administration (NOAA), and the Washington Department of Natural Resources (DNR).

For more information, please call **Piper Peterson Lee**, EPA Project Manager, at **(206) 553-4951**. After August 11, 1997, please call **Lee Marshall**, EPA Project Manager, at **(206) 553-2723**.

Information Repositories

Written information and technical documents regarding projects in this fact sheet are available for your review at the following locations:

In Tacoma:

Main Tacoma Public Library*
1102 Tacoma Avenue South
Northwest Room

Citizens for a Healthy Bay
771 Broadway
(206) 383-2429

Please call for an appointment, if information is needed after business hours.

Asarco Information Center
5311 North Commercial (**Asarco only**)
(206) 756-5436

Please call for an appointment, if information is needed after business hours.

In Seattle:

U.S. Environmental Protection Agency*
1200 Sixth Avenue
7th Floor Records Center

In Olympia:

Washington Department of Ecology
300 Desmond Drive SE (**Asarco only**)

* Indicates official Information Repositories for the Administrative Record

Internet Information

Fact sheets for the Commencement Bay Nearshore/Tideflats Superfund site, beginning in January 1997, are available on the Internet. The Internet address for this information is: **<http://www.epa.gov/r10earth/offices/oec/cercla.html>**. This information is accessible by anyone with Internet access and a browser such as Netscape. The references to contact persons in the web site have been activated as "mailto" links. Clicking on the name pops up an e-mail window to the specified person.

For more information about EPA Region 10's web site, please call **Matt Gubitosa** at **(206) 553-4059**.

For More Information

Call: Jeanne O'Dell, EPA Community Relations Coordinator, at (206) 553-6919 or call one of the EPA representatives listed in this update.

EPA's toll free number is 1-800-424-4372.

For those with impaired hearing or speech, please contact EPA's telecommunication device for the hearing impaired (TDD) at (206) 553-1698.

To ensure effective communication with everyone, additional services can be made available to persons with disabilities by contacting one of the EPA representatives.



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